



Illinois Commerce Commission 2020 Summer Preparedness Policy Session

Stephen Bennett
Manager, Regulatory & Legislative Affairs
PJM Interconnection, LLC

- Summary
- 2020 Summer Study Base Case
- 2020 Summer Study High Load and Sensitivities
- Pandemic Planning and Mitigation Measures

- Perform a summer reliability assessment to include any additional sensitivity analysis required
- Coordinate summer assessments with neighboring systems (NYISO, MISO, TVA, and VACAR)
- Conduct emergency procedures drill to prepare PJM staff and PJM stakeholder staff for any emergency operations
- Ongoing Pandemic Planning, Coordination, and Communication

Summer 2020

- Forecast Summer Demand of Approximately 148,000 MW
- Summer Study Average Demand of 153,000 MW
- Summer Study High Demand of 158,000 MW
- PJM Installed Capacity of More than 187,000 MW

Relative Peaks

- 2019 Summer Peak (July 19) of Approximately 151,000 MW
- All-Time Summer Peak (2006) of 165,563 MW

Summer Study Assessment Parameters

Base Case and Contingencies

- NERC base case
- Data supplied/reviewed by PJM members

Generator Outages

- Average generation metrics
- Member input

50-50 Non-diversified load forecast

- Peak values are aligned so each zone is at its peak load
- This results in RTO load total being elevated (higher than summer forecast)

PJM Interchange

- Scheduled Firm Imports and Exports
- Historical Non-Firm Interchange from last year top 10 peaks

Average Bid Data

- Day ahead data from top 10 peaks last year

Renewable Generation

- Averages from top 10 peaks last year

Planned transmission outages

- Currently scheduled in PJM outage system (eDART)

50/50 Non-diversified Peak Load Base Case

Study Load Forecast	153,463 MW
Preliminary RTO Net Interchange	2,200 MW** (Exporting)
PJM RTO Installed Capacity	187,343 MW (preliminary)
Discrete Generator Outages	12,496 MW

** 2,200 MW of net interchange is modeled in the base case and accounts for historical and forecasted Pseudo Tie data.

PEAK LOAD ANALYSIS

- No reliability issues identified
- Summer Forecast \approx 148,000 MW

- No reliability issues identified for base case and N-1 analysis.
- Generation re-dispatch and switching required to control local thermal or voltage violations in some areas.
- All networked transmission voltage violations were controlled by capacitors. All other voltage violations were caused by radial load.

Sensitivity Studies	Impact
External contingencies that could impact PJM reliability	No reliability concerns
N-1-1 Relay trip conditions	No cascading outage concerns identified <ul style="list-style-type: none">• All networked transmission overloads were controlled pre-contingency
Max-Cred Contingency Analysis	No reliability concerns
Transfer Interface Analysis	No reliability concerns
BGE/PEPCO Import Capability	No reliability concerns
90/10 Load Forecast study (157,861 MW)	No uncontrollable or unexpected issues observed at the elevated load levels.

- Elevated load of 157,861 MW
- No reliability issues identified for base case and N-1 analysis.
- Generation re-dispatch and switching required to control local thermal or voltage violations in some areas.
- All networked transmission voltage violations were controlled by capacitors. All other voltage violations were caused by radial load.

- Configuration of Third Control Room (CR3)
- Sequestration of Full Control Room Crew in CR3
- Campus Closure and Reopening Planning Aligned with Governor
- Nuclear Outage Sensitivity Study
- Coordination and Communication with Stakeholders

PJM Pandemic Coordination

<https://www.pjm.com/committees-and-groups/pandemic-coordination.aspx>